

Maternal smoking may impair infant immunity, causing a broad range of infections

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Maternal smoking is associated with both respiratory and non-respiratory infections in infants, resulting in increased risk for hospitalization and death, according to an abstract to be presented Sunday, Oct. 27, at the American Academy of Pediatrics (AAP) National Conference and Exhibition in Orlando.

In "Maternal Smoking During pregnancy and Infant Infectious Disease Morbidity and Mortality," published earlier this year in the journal *Pediatric Infectious Diseases*, researchers reviewed hospitalization records and death certificates of 50,000 infants born in the state of Washington between 1987 and 2004. The case-control study assessed infant hospitalizations and deaths due to respiratory and non-respiratory infectious disease.

The infants of mothers who smoked were 50 percent more likely to be admitted to a hospital or die from any of a wide variety of [infectious diseases](#) than [babies](#) of mothers who did not smoke.

"We've known for a long time that babies born to mothers who smoke during pregnancy are at high risk for serious medical problems relating to low birth weight, premature delivery and poor lung development," said lead study author Abigail Halperin, MD, MPH. "While respiratory infections have been recognized as a common cause of these sometimes life-threatening illnesses, this study shows that babies exposed to smoke in utero also have increased risk for hospitalization and death from a much broader range of infections—both respiratory and non-respiratory—than we knew before."

The findings were largely independent of [birth weight](#) and gestational age, "thus even full-term babies with normal weight are at increased risk for

hospitalization or death from multiple types of infections if their mother smoked," said Dr. Halperin. The results suggest that exposure to smoke during pregnancy harms [infants'](#) immune responses more generally, not just within the respiratory system, she said.

The study also found that when mothers cut back on their cigarette smoking or quit part way through their pregnancy, it seems to lower their child's risk of infection, said Dr. Halperin. "Counseling pregnant women to reduce their smoking, if they are not able to quit completely, may help reduce infant hospitalizations or [death](#)," she said.

Provided by American Academy of Pediatrics

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